In the Claims:

1. (Currently Amended) A process for producing an aluminum or an aluminum alloy metal foam in a die-casting machine comprising a shot-sleeve or short chamber and a die cavity which comprises foaming a mixture comprising an aluminum or an aluminum alloy metal melt and magnesium hydride as a blowing agent in the die cavity, whereby the blowing agent is solid at room temperature.

2. (Currently Amended) The process according to claim 1, wherein the mixture comprising the <u>aluminum or an aluminum alloy</u> metal melt and the blowing agent is formed by introducing the <u>aluminum or an aluminum alloy</u> metal melt and the blowing agent into the die cavity at the same time.

3. (Currently Amended) The process according to claim 1, wherein the mixture comprising the <u>aluminum or an aluminum alloy</u> metal melt and the blowing agent is formed before introducing the mixture to the die cavity.

4. (Currently Amended) The process according to claim 3, wherein the mixture comprising the <u>aluminum or an aluminum alloy</u> metal melt and the blowing agent is formed in the <u>shot</u>-sleeve or shot chamber and is then introduced to the die cavity.

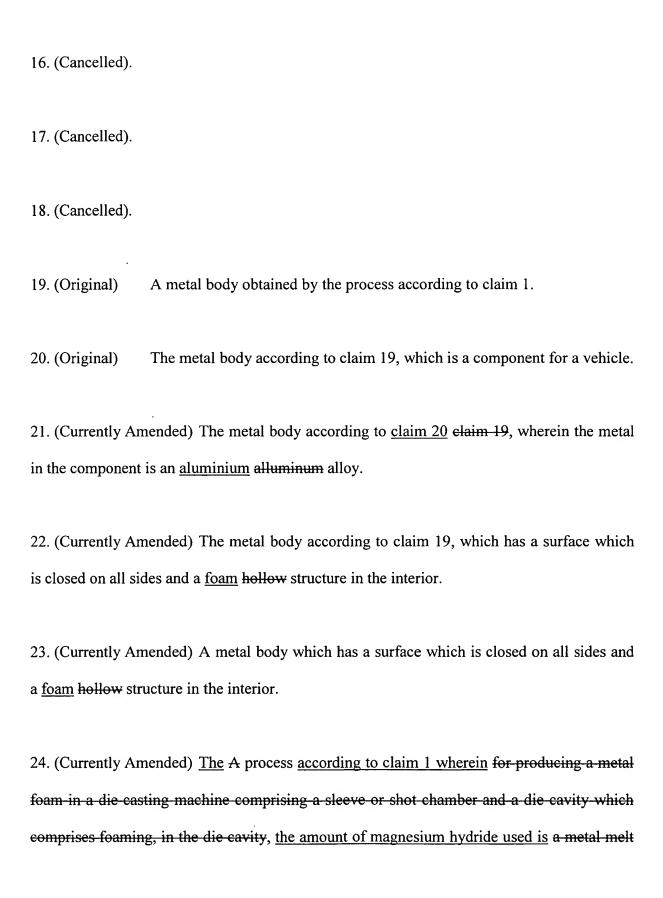
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5. (Cancelled).

6. (Cancelled).

7. (Currently Ame	ended) The process according to claim 1, wherein the die cavity is filled
with the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing	
agent before foaming said mixture.	
8. (Cancelled).	
9. (Original)	The process according to claim 1, wherein the die cavity is underfilled by
a defined volume.	
10. (Cancelled).	
11. (Cancelled).	
12 (Canaallad)	
12. (Cancelled).	
13. (Cancelled).	
14. (Original)	The process according to claim 1, wherein the process is a cold-chamber
process.	
15. (Original)	The process according to claim 1, wherein the process is a hot-chamber
process.	

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and from about 0.01 to about 10% by weight, based on the <u>aluminum or an aluminum alloy</u> metal melt, and at least one blowing agent, whereby the blowing agent is solid at room temperature.

- 25. (Currently Amended) The process according to claim 24, wherein the <u>amount amout</u> of blowing agent is from 0.01 to 10% by weight, based upon metal melt.
- 26. (Original) The process according to claim 24, wherein the amount of blowing agent is from about 0.1 to about 10% by weight based upon metal melt.
- 27. (Cancelled).
- 28. (Cancelled).
- 29. (Currently Amended) The process according to <u>claim 1</u> <u>elaim 27</u>, wherein the <u>magnesium light metal</u> hydride is autocatalytically produced.

Claims 30-45 (Cancelled).

46. (New) A process for producing an aluminum or an aluminum alloy metal foam in a diecasting machine comprising a shot-sleeve and a die cavity which comprises foaming a mixture comprising an aluminum or an aluminum alloy metal melt and magnesium hydride as a blowing agent in the die cavity at a pressure at or greater than approximately 10⁷ Pa.

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47. (New) The process according to claim 46 wherein the pressure is between 10^7 Pa to 10^8 Pa.